

UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

March 7, 2013

Via E-mail
Mr. John J. Ehren
President and Chief Executive Officer
Key Technology, Inc.
150 Avery Street
Walla Walla, WA 99362

Re: Key Technology, Inc.

Form 10-K for fiscal year ended September 30, 2012

Filed December 10, 2012

Form 8-K dated February 28, 2013

Filed March 6, 2013 File No. 1-33919

Dear Mr. Ehren:

We have reviewed your filing and have the following comments. We have limited our review to only your financial statements and related disclosures and do not intend to expand our review to other portions of your documents. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days by providing the requested information or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances or do not believe a revision is appropriate, please tell us why in your response.

After reviewing any amendment to your filing and the information you provide in response to these comments, we may have additional comments.

Form 10-K for Fiscal Year Ended September 30, 2012

Financial Statements and Supplementary Data, page 31

Consolidated Statements of Operations for the three years ended September 30, 2012, page 36

1. We see that your fiscal 2012 statement of operations includes an expense of \$209 thousand labeled "Reclassification from Other comprehensive income". Please tell us and revise future filings to disclose additional details about the nature of this reclassification. Also, provide us with references to the specific U.S. GAAP you considered when determining how to account for and present this reclassification expense in your financial statements. Specifically address why you presented the amount within

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other expenses. Finally, tell us where this reclassification is reflected in your Consolidated Statements of Shareholders' Equity at page 37.

Exhibits 31.1 and 31.2

2. We note that the identification of the certifying individual at the beginning of the certification required by Exchange Act Rule 13a-14(a) also includes the title of the certifying individual. In future filings, the identification of the certifying individual at the beginning of the certification should be revised so as not include the individual's title. Refer to Item 601(b)(31) of Regulation S-K.

Form 8-K dated February 28, 2013 filed March 6, 2013

3. We noted that on February 28, 2013 you completed an acquisition of all of the outstanding shares of Visys NV, a privately held Belgian company, in exchange for approximately \$13 million in cash, 600,000 shares of your common stock and 250,000 warrants to buy shares of your common stock. Please provide us with the significance test calculations outlined at Rule 1-02(w) of Regulation S-X for this acquisition. Also, tell us your historical and pro forma financial statement requirements under Item 9.01 (a) and (b) of Form 8-K that result from the referenced acquisition.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In responding to our comments, please provide a written statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

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You may contact David Burton, Staff Accountant at (202) 551-3626 or Jay Webb, Reviewing Accountant at (202) 551-3603 if you have questions regarding these comments. In this regard, do not hesitate to contact me at (202) 551-3643.

Sincerely,

/s/ Jay Webb "for"

Kevin L. Vaughn Accounting Branch Chief

cc (e-mail): Tom Palmer (legal counsel)

Tonkon Torp LLP